

PATENT ABSTRACTS OF JAPAN

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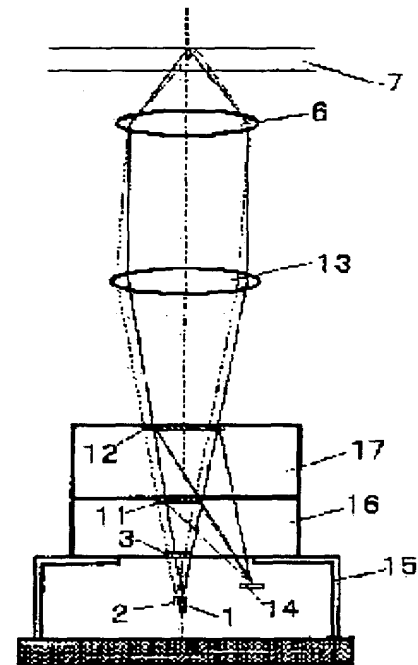
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(54) OPTICAL PICKUP DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an optical pickup device which is compatible with plural recording and reproducing optical disks to different standards by using light beams of different wavelengths, easy to assemble and adjust, and moreover suitable for miniaturization and integration.

SOLUTION: 1st semiconductor laser 1 oscillating in a 650 nm band and 2nd semiconductor laser 2 oscillating in a 780 nm band are arranged proximately. A 3-beam purpose diffraction grating 3 for generating three beams for tracking control, a two-splitting 2nd hologram element 11 diffracting only the 2nd semiconductor laser light, and a four-splitting 1st hologram element 12 diffracting only the laser light of the 1st semiconductor laser are arranged in the optical axes of the 1st semiconductor laser 1 and the 2nd semiconductor laser 2. The light emitted from the 1st semiconductor laser 1 is focused on a disk 7, and the reflected light is diffracted by the hologram element 12 and guided to a photodetector 14. After the light emitted from the semiconductor 2 is separated into three beams through the diffraction grating 3, they are focused on the disk 7, and the reflected return light is diffracted by the hologram element 11 and guided to the photodetector 14.



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